



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,780	12/05/2003	Kent L. Carroll	6835/90627	3399

24628 7590 08/25/2005

WELSH & KATZ, LTD
120 S RIVERSIDE PLAZA
22ND FLOOR
CHICAGO, IL 60606

EXAMINER

SCHNEIDER, CRAIG M

ART UNIT	PAPER NUMBER
----------	--------------

3752

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/729,780	Applicant(s) CARROLL, KENT L.	
	Examiner Craig M. Schneider	Art Unit 3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it exceeds 150 words in length. It is important that the abstract does not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. Correction is required. See MPEP § 608.01(b).
2. Claim 1 is objected to because of the following informalities: In line 5, "the intermediate region" should read --an intermediate region--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-8 rejected under 35 U.S.C. 102(e) as being anticipated by Siimes et al. (US 2003/0155005).

Regarding claim 1, Siimes et al. disclose a burst disk assembly for use in a pressurized gas system for venting pressurized gas from the system in the event that the gas exceeds a predetermined pressure (paragraph 10) which comprises: a body having a plug region (16), an intermediate region (28) adjacent and contiguous with the

Art Unit: 3752

plug region, and a venting region (14) adjacent and contiguous with the intermediate region. The plug region has a defining end rim and an open cross-section (as seen in Figure 1). The intermediate region having a cross-section that is less than the open cross-section of the plug region (as seen in Figure 1). The plug region and the intermediate region defining a radial wall there between having a flat face (Paragraph 21, ll. 1-4). The venting region having an open cross section that is less than the open cross-section of the intermediate region (as seen in Figure 1). A plug (20) having a tapered cylindrical shape (38) having a minimum cross-section that is less than the body plug region open cross section and a maximum cross-section that is greater than the body plug region open cross-section (as seen in Figure 1). The plug having a through bore (22) having a diameter less than the open cross-section of the intermediate region and the plug defining, at an end adjacent the minimum cross-section, a disk face (Paragraph 21, ll. 6-8). A frangible disk (24) configured for placement in the plug region and being sandwiched between the plug disk face and the body radial wall (Paragraph 21, ll. 1-4).

Regarding claim 2, the body plug region has a depth defined between the end rim and the radial wall and wherein the plug has a length that is greater than the depth of the body plug region (as seen in Figures 1, 4, and 5).

Regarding claim 3, the plug has a bearing face opposite the disk face and wherein the bearing face (30) has an arcuate profile (Paragraph 21, ll. 6-8).

Regarding claim 4, the plug region, the intermediate region and the venting region are coaxial (as seen in Figures 1, 4, and 5).

Art Unit: 3752

Regarding claim 5, the plug region and the intermediate region are coaxial (as seen in Figures 1, 4, and 5).

Regarding claim 6, the venting region is transverse to the plug region and the intermediate region (as seen in Figures 1, 4, and 5).

Regarding claim 7, a thread (12) is formed on an outer surface of the body (as seen in Figures 1, 4, and 5) (Paragraph 20).

Regarding claim 8, the plug region, the intermediate region and the venting region are each formed having a constant open cross section (as seen in Figures 1, 4, and 5).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siimes et al.

Siimes et al. have taught all the features of the claimed invention except the tapered cylindrical shape of the plug defines an angle of taper of about 1 degree to about 5 degrees, as well as the claimed subject matter in claim 10.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to taper the plug of Siimes et al at an angle of about 1 degree to about 5 degrees, because applicant has not disclosed

Art Unit: 3752

that having a taper of about 1 degree to about 5 degrees provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with the tapered cylindrical shape of Siimes et al., because the tapered cylindrical shape of Siimes et al. ensure easy insertion of the plug. Therefore it would have been an obvious matter of design choice to modify Siimes et al. to obtain the invention specified in claims 9 and 10.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Page (2,564,171), Simpson (2,582,171), Coffman (2,701,075), Hansen (2,924,354), Hansen (2,934,237), McFarlane (4,590,957) and Short III (4,750,510) disclose other types of burst disk assemblies. Fischer et al. (6,234,190) discloses a tapered plug for use in mixing adaptor with a rupturable membrane.


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig M. Schneider whose telephone number is (571) 272-3607. The examiner can normally be reached on M-F 8:30 -5:00.

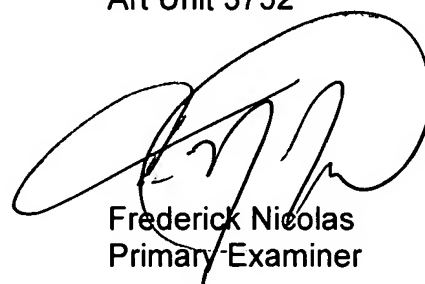
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherbel can be reached on (571) 272-4919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3752

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CMS
August 16, 2005


Craig Schneider
Patent Examiner
Art Unit 3752


Frederick Nicolas
Primary Examiner

8/22/05